SEQUENCE LISTING

<110> CASTILLO, GERARDO M.
NGUYEN, BETH P.
LAKE, THOMAS P.
SNOW, ALAN D.

<120> SMALL PEPTIDES FOR THE TREATMENT OF ALZHEIMER'S DISEASE AND OTHER BETA-AMYLOID PROTEIN FIBRILLOGENESIS DISORDERS

<130> PROTEO.P03CI2

<140> 10/821,250
<141> 2004-04-08

<150> 60/461,655
<151> 2003-04-08

<150> 09/962,955
<151> 2001-09-24

<150> 09/938,275
<151> 2001-08-22

<150> 08/947,057
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<160> 108

<170> PatentIn Ver. 3.2

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Arg Lys Arg Leu Gln Val Gln Leu Ser Ile Arg Thr
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<400> 2
Lys Ala Phe Asp Ile Thr Tyr Val Arg Leu Lys Phe
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<220>
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<400> 3
Arg Gln Val Phe Gln Val Ala Tyr Ile Ile Ile Lys Ala
1 5 10

<210> 4
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<220>
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<400> 4
His Gln Thr Trp Thr Arg Asn Leu Gln Val Thr Leu
1 5 10

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<220>
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<400> 5
Ile Ser Asn Val Phe Val Gln Arg Leu Ser Leu Ser
1 5 10

<210> 6
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<220>
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<400> 6
Ala Ser Pro Pro Ser Val Lys Val Trp Gln Asp Ala
1 5 10

<210> 7
<211> 13
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<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 7
Arg Gly Leu Val Phe His Thr Gly Thr Lys Asn Ser Phe
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<210> 8
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<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 8
Tyr Leu Ser Lys Gly Arg Leu Val Phe Ala Leu Gly
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<210> 9
<211> 12
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<213> Artificial Sequence

<220>
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Asn Asp Gly Lys Trp His Thr Val Val Phe Gly His
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<220>
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<400> 10
Gly Asn Ser Thr Ile Ser Ile Arg Ala Pro Val Tyr
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<400> 11

Thr Leu Phe Leu Ala His Gly Arg Leu Val Phe Met
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<210> 12
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<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 12
His Pro Asp Asp Phe Val Phe Tyr Val Gly Gly Tyr
1 5 10

<210> 13
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<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 13
Trp Leu Tyr Val Asp Asp Gln Leu Gln Leu Val Lys
1 5 10

<210> 14
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 14
Val Gln Ser Arg Gln His Ser Arg Ala Gly Gln Trp
1 5 10

<210> 15
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<213> Artificial Sequence

<220>
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Ala Gly Gln Trp His Arg Val Ser Val Arg Trp Gly
1 5 10

<210> 16

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Val Arg Trp Gly Met Gln Gln Ile Gln Leu Val Val
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<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 17
Thr Trp Ser Gln Lys Ala Leu His His Arg Val Pro
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<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 18
Asp Gly Arg Trp His Arg Val Ala Val Ile Met Gly
1 5 10

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Ala Pro Val Asn Val Thr Ala Ser Val Gln Ile Gln
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Lys Pro Arg Leu Gln Phe Ser Leu Asp Ile Gln Thr
1 5 10

<210> 21
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Arg Asn Arg Leu His Leu Ser Met Leu Val Arg Pro
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<210> 22
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Ala Ala Ser Ile Lys Val Ala Val Ser Ala Asp Arg
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<210> 24
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Phe Lys Leu Pro Gln Glu Leu Leu Lys Pro Arg Ser

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<210> 25
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Lys Asn Ser Phe Met Ala Leu Tyr Leu Ser Lys Gly
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<210> 26
<211> 12
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Leu His Val Phe Tyr Asp Phe Gly Phe Ser Asn Gly
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<211> 12
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<220>
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<400> 27
Val Leu Val Arg Val Glu Arg Ala Thr Val Phe Ser
1 5 10

<210> 28
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 28
Phe Leu Pro Leu Ala Leu Pro Asp Val Ala Pro Ile
1 5 10

<210> 29
<211> 12

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 29
Gly Pro Leu Pro Ser Tyr Leu Gln Phe Val Gly Ile
1 5 10

<210> 30
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 30
Ser Val Gln Ile Gln Gly Ala Val Gly Met Arg Gly
1 5 10

<210> 31
<211> 416
<212> PRT
<213> Homo sapiens

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Val Val Arg Leu Asn Asp Thr Val Gly Val Thr Lys Lys Cys Ser Glu
1 5 10 15

Asp Trp Lys Leu Val Arg Ser Ala Ser Phe Ser Arg Gly Gly Gln Leu
20 25 30

Ser Phe Thr Asp Leu Gly Leu Pro Pro Thr Asp His Leu Gln Ala Ser
35 40 45

Phe Gly Phe Gln Thr Phe Gln Pro Ser Gly Ile Leu Leu Asp His Gln
50 55 60

Thr Trp Thr Arg Asn Leu Gln Val Thr Leu Glu Asp Gly Tyr Ile Glu
65 70 75 80

Leu Ser Thr Ser Asp Ser Gly Gly Pro Ile Phe Lys Ser Pro Gln Thr
85 90 95

Tyr Met Asp Gly Leu Leu His Tyr Val Ser Val Ile Ser Asp Asn Ser
100 105 110

Gly Leu Arg Leu Leu Ile Asp Asp Gln Leu Leu Arg Asn Ser Lys Arg
115 120 125

Leu Lys His Ile Ser Ser Ser Arg Gln Ser Leu Arg Leu Gly Gly Ser
130 135 140

Asn Phe Glu Gly Cys Ile Ser Asn Val Phe Val Gln Arg Leu Ser Leu
145 150 155 160

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Ser Pro Glu Val Leu Asp Leu Thr Ser Asn Ser Leu Lys Arg Asp Val
                165                 170                 175

Ser Leu Gly Gly Cys Ser Leu Asn Lys Pro Pro Phe Leu Met Leu Leu
            180                 185                 190

Lys Gly Ser Thr Arg Phe Asn Lys Thr Lys Thr Phe Arg Ile Asn Gln
        195                 200                 205

Leu Leu Gln Asp Thr Pro Val Ala Ser Pro Arg Ser Val Lys Val Trp
    210                 215                 220

Gln Asp Ala Cys Ser Pro Leu Pro Lys Thr Gln Ala Asn His Gly Ala
225                 230                 235                 240

Leu Gln Phe Gly Asp Ile Pro Thr Ser His Leu Leu Phe Lys Leu Pro
                245                 250                 255

Gln Glu Leu Leu Lys Pro Arg Ser Gln Phe Ala Val Asp Met Gln Thr
            260                 265                 270

Thr Ser Ser Arg Gly Leu Val Phe His Thr Gly Thr Lys Asn Ser Phe
        275                 280                 285

Met Ala Leu Tyr Leu Ser Lys Gly Arg Leu Val Phe Ala Leu Gly Thr
    290                 295                 300

Asp Gly Lys Lys Leu Arg Ile Lys Ser Lys Glu Lys Cys Asn Asp Gly
305                 310                 315                 320

Lys Trp His Thr Val Val Phe Gly His Asp Gly Glu Lys Gly Arg Leu
                325                 330                 335

Val Val Asp Gly Leu Arg Ala Arg Glu Gly Ser Leu Pro Gly Asn Ser
            340                 345                 350

Thr Ile Ser Ile Arg Ala Pro Val Tyr Leu Gly Ser Pro Pro Ser Gly
        355                 360                 365

Lys Pro Lys Ser Leu Pro Thr Asn Ser Phe Val Gly Cys Leu Lys Asn
    370                 375                 380

Phe Gln Leu Asp Ser Lys Pro Leu Tyr Thr Pro Ser Ser Ser Phe Gly
385                 390                 395                 400

Val Ser Ser Cys Leu Gly Gly Pro Leu Glu Lys Gly Ile Tyr Phe Ser
                405                 410                 415
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<210> 32
<211> 964
<212> PRT
<213> Mus musculus

<400> 32

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Thr Ser Ile Ser Leu Tyr Met Lys Pro Pro Pro Lys Pro Gln Thr Thr
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Gly Ala Trp Val Ala Asp Gln Phe Val Leu Tyr Leu Gly Ser Lys Asn
             20                  25                  30
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Ala Lys Lys Glu Tyr Met Gly Leu Ala Ile Lys Asn Asp Asn Leu Val
35 40 45

Tyr Val Tyr Asn Leu Gly Met Lys Asp Val Glu Ile Leu Leu Asp Ser
50 55 60

Lys Pro Val Ser Ser Trp Pro Ala Tyr Phe Ser Ile Val Lys Ile Glu
65 70 75 80

Arg Val Gly Lys His Gly Lys Val Phe Leu Thr Val Pro Ser Ser Ser
85 90 95

Ser Thr Ala Glu Glu Lys Phe Ile Lys Lys Gly Glu Phe Ala Gly Asp
100 105 110

Asp Ser Leu Leu Asp Leu Thr Pro Glu Asp Thr Val Phe Tyr Val Gly
115 120 125

Gly Val Pro Ala Asn Phe Lys Leu Pro Ala Ser Leu Asn Leu Pro Ser
130 135 140

Tyr Ser Gly Cys Leu Glu Leu Ala Thr Leu Asn Asn Asp Val Ile Ser
145 150 155 160

Leu Tyr Asn Phe Lys His Ile Tyr Asn Met Asp Pro Ser Lys Ser Val
165 170 175

Pro Cys Ala Arg Asp Lys Leu Ala Phe Thr Gln Ser Arg Ala Ala Ser
180 185 190

Tyr Phe Phe Asp Gly Ser Ser Tyr Ala Val Val Arg Asp Ile Thr Arg
195 200 205

Arg Gly Lys Phe Gly Gln Val Thr Arg Phe Asp Ile Glu Ile Arg Thr
210 215 220

Pro Ala Asp Asn Gly Leu Val Leu Leu Met Val Asn Gly Ser Met Phe
225 230 235 240

Phe Ser Leu Glu Met Arg Asn Gly Tyr Leu His Val Phe Tyr Asp Phe
245 250 255

Gly Phe Ser Asn Gly Pro Val His Leu Glu Asp Thr Leu Lys Lys Ala
260 265 270

Gln Ile Asn Asp Ala Lys Tyr Arg Glu Ile Ser Ile Ile Tyr His Asn
275 280 285

Asp Lys Lys Met Ile Leu Val Val Asp Arg Arg His Val Lys Ser Thr
290 295 300

Asp Asn Glu Lys Lys Lys Ile Pro Phe Thr Asp Ile Tyr Ile Gly Gly
305 310 315 320

Ala Pro Gln Glu Val Leu Gln Ser Arg Thr Leu Arg Ala His Leu Pro
325 330 335

Leu Asp Ile Asn Phe Arg Gly Cys Met Lys Gly Ile Gln Phe Gln Lys
340 345 350

Lys Asp Phe Asn Leu Leu Glu Gln Thr Glu Thr Leu Gly Val Gly Tyr

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        355                 360                 365

Gly Cys Pro Glu Asp Ser Leu Ile Ser Arg Arg Ala Tyr Phe Asn Gly
    370                 375                 380

Gln Ser Phe Ile Ala Ser Ile Gln Lys Ile Ser Phe Phe Asp Gly Phe
385                 390                 395                 400

Glu Gly Gly Phe Asn Phe Arg Thr Leu Gln Pro Asn Gly Leu Leu Phe
                405                 410                 415

Tyr Tyr Thr Ser Gly Ser Asp Val Phe Ser Ile Ser Leu Asp Asn Gly
            420                 425                 430

Thr Val Val Met Asp Val Lys Gly Ile Lys Val Met Ser Thr Asp Lys
        435                 440                 445

Gln Tyr His Asp Gly Leu Pro His Phe Val Val Thr Ser Ile Ser Asp
    450                 455                 460

Thr Arg Tyr Glu Leu Val Val Asp Lys Ser Arg Leu Arg Gly Lys Asn
465                 470                 475                 480

Pro Thr Lys Gly Lys Ala Glu Gln Thr Gln Thr Thr Glu Lys Lys Phe
                485                 490                 495

Tyr Phe Gly Gly Ser Pro Ile Ser Pro Gln Tyr Ala Asn Phe Thr Gly
            500                 505                 510

Cys Ile Ser Asn Ala Tyr Phe Thr Arg Leu Asp Arg Asp Val Glu Val
        515                 520                 525

Glu Ala Phe Gln Arg Tyr Ser Glu Lys Val His Thr Ser Leu Tyr Glu
    530                 535                 540

Cys Pro Ile Glu Ser Ser Pro Leu Phe Leu Leu His Lys Lys Gly Lys
545                 550                 555                 560

Asn Ser Ser Lys Pro Lys Thr Asn Lys Gln Gly Glu Lys Ser Lys Asp
                565                 570                 575

Ala Pro Ser Trp Asp Pro Ile Gly Leu Lys Phe Leu Glu Gln Lys Ala
            580                 585                 590

Pro Arg Asp Ser His Cys His Leu Phe Ser Ser Pro Arg Ala Ile Glu
        595                 600                 605

His Ala Tyr Gln Tyr Gly Gly Thr Ala Asn Ser Arg Gln Glu Phe Glu
    610                 615                 620

His Glu Gln Gly Asp Phe Gly Glu Lys Ser Gln Phe Ser Ile Arg Leu
625                 630                 635                 640

Lys Thr Arg Ser Ser His Gly Met Ile Phe Tyr Val Ser Asp Gln Glu
                645                 650                 655

Glu Asn Asp Phe Met Thr Leu Phe Leu Ala His Gly Arg Leu Val Phe
            660                 665                 670

Met Phe Asn Val Gly His Lys Lys Leu Lys Ile Arg Ser Gln Glu Lys
        675                 680                 685
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Tyr Asn Asp Gly Leu Trp His Asp Val Ile Phe Ile Arg Glu Lys Ser
    690                 695                 700

Ser Gly Arg Leu Val Ile Asp Gly Leu Arg Val Leu Glu Glu Arg Leu
705                 710                 715                 720

Pro Pro Ser Gly Ala Ala Trp Lys Ile Lys Gly Pro Ile Tyr Leu Gly
                725                 730                 735

Gly Val Ala Pro Gly Arg Ala Val Lys Asn Val Gln Ile Thr Ser Val
            740                 745                 750

Tyr Ser Phe Ser Gly Cys Leu Gly Asn Leu Gln Leu Asn Gly Ala Ser
        755                 760                 765

Ile Thr Ser Ala Ser Gln Thr Phe Ser Val Thr Pro Cys Phe Glu Gly
    770                 775                 780

Pro Met Glu Thr Gly Thr Tyr Phe Ser Thr Glu Gly Gly Tyr Val Val
785                 790                 795                 800

Leu Asp Glu Ser Phe Asn Ile Gly Leu Lys Phe Glu Ile Ala Phe Glu
                805                 810                 815

Val Arg Pro Arg Ser Ser Ser Gly Thr Leu Val His Gly His Ser Val
            820                 825                 830

Asn Gly Glu Tyr Leu Asn Val His Met Arg Asn Gly Gln Val Ile Val
        835                 840                 845

Lys Val Asn Asn Gly Val Arg Asp Phe Ser Thr Ser Val Thr Pro Lys
    850                 855                 860

Gln Asn Leu Cys Asp Gly Arg Trp His Arg Ile Thr Val Ile Arg Asp
865                 870                 875                 880

Ser Asn Val Val Gln Leu Asp Val Asp Ser Glu Val Asn His Val Val
                885                 890                 895

Gly Pro Leu Asn Pro Lys Pro Val Asp His Arg Glu Pro Val Phe Val
            900                 905                 910

Gly Gly Val Pro Glu Ser Leu Leu Thr Pro Arg Leu Ala Pro Ser Lys
        915                 920                 925

Pro Phe Thr Gly Cys Ile Arg His Phe Val Ile Asp Ser Arg Pro Val
    930                 935                 940

Ser Phe Ser Lys Ala Ala Leu Val Ser Gly Ala Val Ser Ile Asn Ser
945                 950                 955                 960

Cys Pro Thr Ala
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<210> 33
<211> 956
<212> PRT
<213> Mus musculus

<400> 33

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Thr Ala Leu Lys Phe His Ile Gln Ser Pro Val Pro Ala Pro Glu Pro
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Gly Lys Asn Thr Gly Asp His Phe Val Leu Tyr Met Gly Ser Arg Gln
            20                  25                  30

Ala Thr Gly Asp Tyr Met Gly Val Ser Leu Arg Asn Gln Lys Val His
        35                  40                  45

Trp Val Tyr Arg Leu Gly Lys Ala Gly Pro Thr Thr Leu Ser Ile Asp
    50                  55                  60

Glu Asn Ile Gly Glu Gln Phe Ala Ala Val Ser Ile Asp Arg Thr Leu
65                  70                  75                  80

Gln Phe Gly His Met Ser Val Thr Val Glu Lys Gln Met Val His Glu
                85                  90                  95

Ile Lys Gly Asp Thr Val Ala Pro Gly Ser Glu Gly Leu Leu Asn Leu
            100                 105                 110

His Pro Asp Asp Phe Val Phe Tyr Val Gly Gly Tyr Pro Ser Asn Phe
        115                 120                 125

Thr Pro Pro Glu Pro Leu Arg Phe Pro Gly Tyr Leu Gly Cys Ile Glu
    130                 135                 140

Met Glu Thr Leu Asn Glu Glu Val Val Ser Leu Tyr Asn Phe Glu Gln
145                 150                 155                 160

Thr Phe Met Leu Asp Thr Ala Val Asp Lys Pro Cys Ala Arg Ser Lys
                165                 170                 175

Ala Thr Gly Asp Pro Trp Leu Thr Asp Gly Ser Tyr Leu Asp Gly Ser
            180                 185                 190

Gly Phe Ala Arg Ile Ser Phe Glu Lys Gln Phe Ser Asn Thr Lys Arg
        195                 200                 205

Phe Asp Gln Glu Leu Arg Leu Val Ser Tyr Asn Gly Ile Ile Phe Phe
    210                 215                 220

Leu Lys Gln Glu Ser Gln Phe Leu Cys Leu Ala Val Gln Glu Gly Thr
225                 230                 235                 240

Leu Val Leu Phe Tyr Asp Phe Gly Ser Gly Leu Lys Lys Ala Asp Pro
                245                 250                 255

Leu Gln Pro Pro Gln Ala Leu Thr Ala Ala Ser Lys Ala Ile Gln Val
            260                 265                 270

Phe Leu Leu Ala Gly Asn Arg Lys Arg Val Leu Val Arg Val Glu Arg
        275                 280                 285

Ala Thr Val Phe Ser Val Asp Gln Asp Asn Met Leu Glu Met Ala Asp
    290                 295                 300

Ala Tyr Tyr Leu Gly Gly Val Pro Pro Glu Gln Leu Pro Leu Ser Leu
305                 310                 315                 320

Arg Gln Leu Phe Pro Ser Gly Gly Ser Val Arg Gly Cys Ile Lys Gly
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                325                 330                 335

Ile Lys Ala Leu Gly Lys Tyr Val Asp Leu Lys Arg Leu Asn Thr Thr
            340                 345                 350

Gly Ile Ser Phe Gly Cys Thr Ala Asp Leu Leu Val Gly Arg Thr Met
        355                 360                 365

Thr Phe His Gly His Gly Phe Leu Pro Leu Ala Leu Pro Asn Val Ala
    370                 375                 380

Pro Ile Thr Glu Val Val Tyr Ser Gly Phe Gly Phe Arg Gly Thr Gln
385                 390                 395                 400

Asp Asn Asn Leu Leu Tyr Tyr Arg Thr Ser Pro Asp Gly Pro Tyr Gln
                405                 410                 415

Val Ser Leu Arg Glu Gly His Val Thr Leu Arg Phe Met Asn Gln Glu
            420                 425                 430

Val Glu Thr Gln Arg Val Phe Ala Asp Gly Ala Pro His Tyr Val Ala
        435                 440                 445

Phe Tyr Ser Asn Val Thr Gly Val Trp Leu Tyr Val Asp Asp Gln Leu
    450                 455                 460

Gln Leu Val Lys Ser His Glu Arg Thr Thr Pro Met Leu Gln Leu Gln
465                 470                 475                 480

Pro Glu Glu Pro Ser Arg Leu Leu Leu Gly Gly Leu Pro Val Ser Gly
                485                 490                 495

Thr Phe His Asn Phe Ser Gly Cys Ile Ser Asn Val Phe Val Gln Arg
            500                 505                 510

Leu Arg Gly Pro Gln Arg Val Phe Asp Leu His Gln Asn Met Gly Ser
        515                 520                 525

Val Asn Val Ser Val Gly Cys Thr Pro Ala Gln Leu Ile Glu Thr Ser
    530                 535                 540

Arg Ala Thr Ala Gln Lys Val Ser Arg Arg Ser Arg Gln Pro Ser Gln
545                 550                 555                 560

Asp Leu Ala Cys Thr Thr Pro Trp Leu Pro Gly Thr Ile Gln Asp Ala
                565                 570                 575

Tyr Gln Phe Gly Gly Pro Leu Pro Ser Tyr Leu Gln Phe Val Gly Ile
            580                 585                 590

Ser Pro Ser His Arg Asn Arg Leu His Leu Ser Met Leu Val Arg Pro
        595                 600                 605

His Ala Ala Ser Gln Gly Leu Leu Leu Ser Thr Ala Pro Met Ser Gly
    610                 615                 620

Arg Ser Pro Ser Leu Val Leu Phe Leu Asn His Gly His Phe Val Ala
625                 630                 635                 640

Gln Thr Glu Gly Pro Gly Pro Arg Leu Gln Val Gln Ser Arg Gln His
                645                 650                 655
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Ser Arg Ala Gly Gln Trp His Arg Val Ser Val Arg Trp Gly Met Gln
660 665 670

Gln Ile Gln Leu Val Val Asp Gly Ser Gln Thr Trp Ser Gln Lys Ala
675 680 685

Leu His His Arg Val Pro Arg Ala Glu Arg Pro Gln Pro Tyr Thr Leu
690 695 700

Ser Val Gly Gly Leu Pro Ala Ser Ser Tyr Ser Ser Lys Leu Pro Val
705 710 715 720

Ser Val Gly Phe Ser Gly Cys Leu Lys Lys Leu Gln Leu Asp Lys Gln
725 730 735

Pro Leu Arg Thr Pro Thr Gln Met Val Gly Val Thr Pro Cys Val Ser
740 745 750

Gly Pro Leu Glu Asp Gly Leu Phe Phe Pro Gly Ser Glu Gly Val Val
755 760 765

Thr Leu Glu Leu Pro Lys Ala Lys Met Pro Tyr Val Ser Leu Glu Leu
770 775 780

Glu Met Arg Pro Leu Ala Ala Ala Gly Leu Ile Phe His Leu Gly Gln
785 790 795 800

Ala Leu Ala Thr Pro Tyr Met Gln Leu Lys Val Leu Thr Glu Gln Val
805 810 815

Leu Leu Gln Ala Asn Asp Gly Ala Gly Glu Phe Ser Thr Trp Val Thr
820 825 830

Tyr Pro Lys Leu Cys Asp Gly Arg Trp His Arg Val Ala Val Ile Met
835 840 845

Gly Arg Asp Thr Leu Arg Leu Glu Val Asp Thr Gln Ser Asn His Thr
850 855 860

Thr Gly Arg Leu Pro Glu Ser Leu Ala Gly Ser Pro Ala Leu Leu His
865 870 875 880

Leu Gly Ser Leu Pro Lys Ser Ser Thr Ala Arg Pro Glu Leu Pro Ala
885 890 895

Tyr Arg Gly Cys Leu Arg Lys Leu Leu Ile Asn Gly Ala Pro Val Asn
900 905 910

Val Thr Ala Ser Val Gln Ile Gln Gly Ala Val Gly Met Arg Gly Cys
915 920 925

Pro Ser Gly Thr Leu Ala Leu Ser Lys Gln Gly Lys Ala Leu Thr Gln
930 935 940

Arg His Ala Lys Pro Ser Val Ser Pro Leu Leu His
945 950 955

<210> 34
<211> 12
<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 34
Thr Arg Ile Ser Leu Gln Val Gln Leu Arg Lys Arg
1 5 10

<210> 35
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 35
Ala Lys Ile Ile Ile Tyr Ala Val Gln Phe Val Gln Arg
1 5 10

<210> 36
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 36
Gly Leu Ala Phe Val Leu Arg Gly Lys Ser Leu Tyr
1 5 10

<210> 37
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 37
Met Phe Val Leu Arg Gly His Ala Leu Phe Leu Thr
1 5 10

<210> 38
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 38
Gly Trp Arg Val Ser Val Arg His Trp Gln Gly Ala
1 5 10

<210> 39
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 39
Gly Met Ile Val Ala Val Arg His Trp Arg Gly Asp
1 5 10

<210> 40
<211> 12
<212> PRT
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<223> Description of Artificial Sequence: Synthetic peptide

<400> 40
Thr Leu Phe Phe Met Arg Leu Val His Ala Leu Gly
1 5 10

<210> 41
<211> 5
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 41
Leu Pro Phe Phe Asp
1 5

<210> 42
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 42
Ala Gly Gln Trp His Arg Val
1 5

<210> 43
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 43
Gly Gln Trp His Arg Val Ser
1 5

<210> 44
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 44
Gln Trp His Arg Val Ser Val
1 5

<210> 45
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 45
Trp His Arg Val Ser Val Arg
1 5

<210> 46
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 46
His Arg Val Ser Val Arg Trp
1 5

<210> 47
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 47
Arg Val Ser Val Arg Trp Gly
1 5

<210> 48
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 48
Asp Gly Arg Trp His Arg Val
1 5

<210> 49
<211> 7
<212> PRT
<213> Artificial Sequence

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<210> 52
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<210> 55
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<210> 56

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<210> 57
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<210> 64
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<210> 66
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<210> 69
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<210> 72
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<210> 73
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<210> 74
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<210> 75
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<210> 76
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<210> 77
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<400> 77
Val Ala Tyr Ile Ile Ile Lys
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<210> 78
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Ala Tyr Ile Ile Ile Lys Ala
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<210> 79
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<210> 80
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<210> 83
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<210> 84
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<210> 85
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<210> 86
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<400> 86

Leu Phe Leu Ala His Gly Arg Tyr
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<210> 87
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<400> 87
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<210> 88
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<400> 88
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<210> 89
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<400> 89
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<210> 90
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<400> 90
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<210> 91

<211> 8
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<400> 91
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<210> 92
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<400> 92
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<210> 93
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<400> 93
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<210> 94
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Trp His Arg Val Ser Val Arg Tyr
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<210> 95
<211> 8
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<400> 95
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<210> 96
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<400> 96
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1 5

<210> 97
<211> 8
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Asp Gly Arg Trp His Arg Val Tyr
1 5

<210> 98
<211> 8
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<400> 98
Gly Arg Trp His Arg Val Ala Tyr
1 5

<210> 99
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<400> 99
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1 5

<210> 100
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<400> 100
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1 5

<210> 101
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<400> 101
His Arg Val Ala Val Ile Met Tyr
1 5

<210> 102
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1 5

<210> 103
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1 5

<210> 104
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<212> PRT
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<210> 105
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<210> 106
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1 5

<210> 107
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<210> 108
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1 5